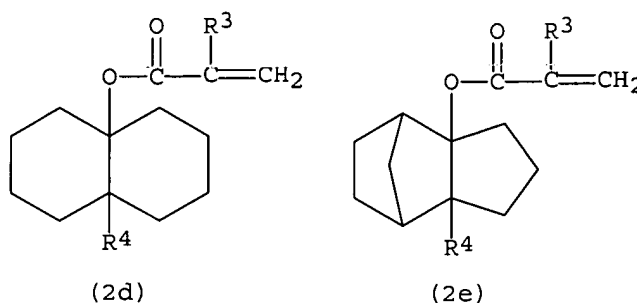


AMENDED CLAIM SET:

1. - 8. (cancelled).

9. (previously presented) An acid-responsive compound represented by the following formula (2d) or (2e):



wherein R^3 represents a hydrogen atom or a methyl group; R^4 represents an oxygen-containing group selected from the group consisting of oxo groups, hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups.

10. (currently amended) A photoresist resin composition comprising

(i) a polymer having at least one unit corresponding to the acid-responsive compound of formula (1a) or (2a) as defined in Claim 17 ~~(1a-1), (1a-2), or (2a-1) as defined in Claim 1~~ or of formula (2d) or (2e) as defined in Claim 9 and

(ii) a photoactive acid precursor.

11. (cancelled).

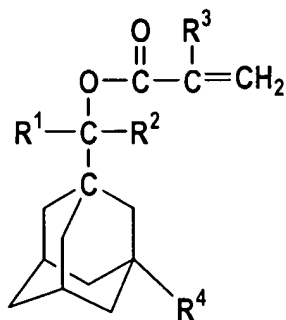
12. (previously presented) The photoresist resin composition according to Claim 10, which contains 0.1 to 30 parts by weight of the photoactive acid precursor (ii) relative to 100 parts by weight of the polymer (i).

13. (previously presented) The photoresist resin composition according to Claim 10, wherein the polymer is a copolymer.

14. (previously presented) A method of forming a pattern, which method comprises

subjecting a layer comprising the photoresist resin composition of Claim 10 formed on a substrate to pattern exposure and
developing the exposed coating layer to form a pattern.

15. (currently amended) The acid-responsive compound of Claim 17 ~~claim 1~~, having the following formula (1a-1)

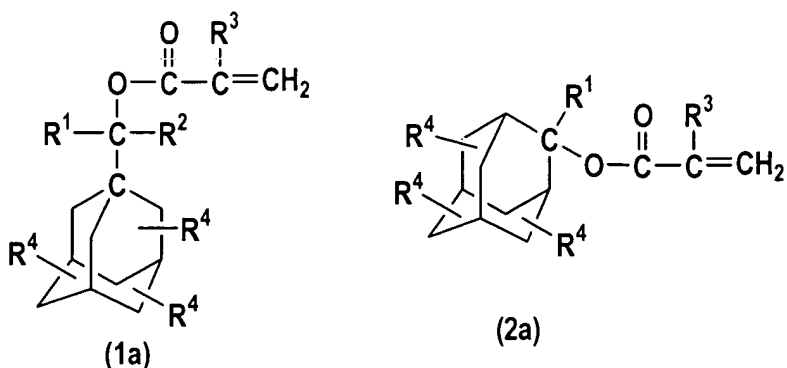


(1a-1)

~~in which~~ wherein R¹ is isopropyl, R² is methyl, R³ is hydrogen, and R⁴ is hydroxy, namely, 1-hydroxy-3-[(1-acryloyloxy-1-isopropyl-1-methyl)methyl]adamantane ~~1-hydroxy-3-(1-acryloyloxy-1,2-dimethylpropyl)adamantine~~.

16. (currently amended) The acid-responsive compound of Claim claim 9, having the formula (2e) in which R³ is hydrogen and R⁴ is hydroxy, namely, 2-hydroxy-6-acryloyloxy-tricyclo[5.2.1.0^{2,6}]decane.

17. (new) An acid-responsive compound represented by the following formula (1a) or (2a):

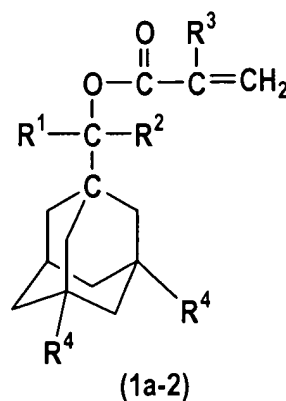
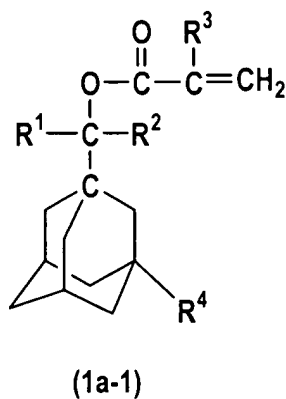


wherein R¹ in formula (1a) represents a hydrogen atom, an alkyl group, or a cycloalkyl group; R¹ in the formula (2a) represents an alkyl group or a cycloalkyl group; R² represents an alkyl group or a cycloalkyl group; R¹ and R² may, jointly and together with the adjacent carbon atom, form an alicyclic hydrocarbon ring; R³ represents a hydrogen atom or a methyl group; and each R⁴ independently represents a hydrogen atom, a halogen atom, an alkyl group, an amino group, an N-substituted amino group, or an oxygen-containing group selected from the group consisting of hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups.

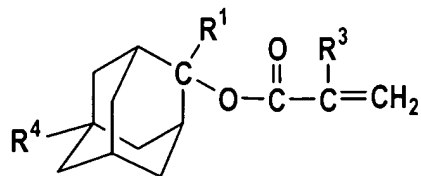
18. (new) The acid-responsive compound according to claim 17 having the formula (1a), wherein R^1 is a hydrogen atom; R^2 is a straight-chain or branched-chain C_{1-4} alkyl group; R^1 and R^2 may, jointly and together with the adjacent carbon atom, form an alicyclic hydrocarbon ring; R^3 is a hydrogen atom or a methyl group; and each R^4 independently is a hydrogen atom or an oxygen-containing group selected from the group consisting of hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups, provided that at least one R^4 is an oxygen-containing group.

19. (new) The acid-responsive compound according to Claim 17, wherein each R^4 independently represents a hydrogen group or an oxygen-containing group.

20. (new) The acid-responsive compound according to Claim 17, which is represented by the following formula (1a-1) or (1a-2)



wherein R^1 represents a hydrogen atom, an alkyl group, or a cycloalkyl group; R^2



(2a-1)

represents an alkyl group or a cycloalkyl group; R^1 and R^2 may, jointly and together with the adjacent carbon atom, form an alicyclic hydrocarbon ring; R^3 represents a hydrogen atom or a methyl group; and R^4 represents an oxygen-containing group, and in formula (1a-2), the two R^4 substituents may be the same as or different from one another, or is represented by the following formula (2a-1) wherein R^1 represents an alkyl group or a cycloalkyl group; R^3 represents a hydrogen atom or a methyl group; and R^4 represents an oxygen-containing group,

wherein the oxygen-containing group R^4 in formulae (1a-1), (1a-2), and (2a-1) is selected from the group consisting of hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups.